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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/475,686	12/30/1999	BUSHAN GUPTA	99-B-156-(85	6718

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EXAMINER
TRIEU, VAN THANH

ART UNIT	PAPER NUMBER
2632	

DATE MAILED: 06/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/475,686	GUPTA ET AL.	
	Examiner	Art Unit	
	Van T Trieu	2632	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 December 1999* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-4, 6-20, 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by **Abramov** [US 4,577,345].

Regarding claims 1-4, 6-20, 22 and 23, **Abramov** discloses an electrical method and apparatus for sensing the pattern of ridges R and valleys V on an individual's finger to provide binary electrical signals representing of the sensed fingerprint pattern. The fingerprint sensor S having a housing 10 is constructed and defined with an integrated circuit IC chip having an arrays of sensing circuits arranged thereon in rows X and columns Y in the form of a plurality of IC contact pads 14. The fingerprint pattern with a plurality of ridges R and valleys V is advantageously translated from an individual's finger to a corresponding conductive pattern of ridges R and valleys V on a membrane 16 applied to an array of switching/sensing circuits deposited on the semiconductor substrate to change the conductive condition of the electrical switches to generate an electrical pattern of binary signals that corresponds to the ridges R and valleys V of the fingerprint pattern. The binary output signals can be processed by known techniques such as computer 41, a pre-programming processor or electronic logic circuit for

comparing the sensed fingerprint with known fingerprint patterns, previously stored fingerprint patterns or stored reference patterns in a permanent memory 31, a computer 40 or auxiliary memories 42 and 43. If the sensed fingerprint matches with the stored fingerprint pattern and the manipulated pattern signal is emitted to open the lock 44. If no match of fingerprint is detected, the computer 41 will emit a signal to activate an alarm at the lock 44. The method and apparatus is utilized as high security lock for automobiles, see Figs. 1-10, abstract, col. 2, lines 3-50, col. 4, lines 29-68, col. 5, lines 1-41, col. 7, lines 20-52, col. 8, lines 35-68 and col. 9, lines 1-12.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Abramov** [US 4,577,345] in view of **Setlak** [US 5,963,679].

Regarding claim 3, **Abramov** fails to disclose the groups are circular in shape. However, **Abramov** teaches that the groups of grids R and valleys V are formed in the shape of squares for detecting/sensing any size of an individual's finger, see Figs. 1, 3 and 4. **Setlak** suggests that a fingerprint sensor including an array of electric field sensing electrodes 78 to form an annular/circular shape. As would be readily appreciated by those skill in the art the sensing electrodes 78 and its surrounding shield electrode 80 may have other shapes, such as hexagonal, see Figs. 4-6, abstract, col. 7, lines 4-10. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to substitute the sensing circulars of **Setlak** for the sensing squares of **Abramov** because the sensor could be any shapes that provides the best results of capturing of the individual's fingerprint pattern with higher accuracy and clearly indication of the fingerprint.

3. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Abramov** [US 4,577,345].

Regarding claim 21, **Abramov** fails to disclose one of the functions performed is to unlock the doors of the automobile. However, **Abramov** teaches that if the sensed fingerprint matches with the stored fingerprint pattern and the manipulated pattern signal is emitted to open the door lock 44 of an automobile. If no match of fingerprint is detected, the computer 41 will emit a signal to activate an alarm at the lock 44, see col.

2, lines 20-22 and col. 9, lines 8-10. It would have been obvious to one of ordinary skill in the art to recognize that the fingerprint sensor of is eventually to unlock the automobile door 44 since the door is designed to lock and unlock for entry or leaving of the automobile and for security safety, such as the automobile owner utilizes the fingerprint sensor to remotely unlock the door as he/she is approaching the automobile.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Meadows, II et al discloses an automated fingerprint identification system which utilizes an encoded ID card to register an finger of their choice. [US 5,869,822]

Bjorn et al discloses a method and apparatus for fingerprint recognition. The fingerprint is detected on a sensor and digitized. [US 6,125,192]

Foster, Jr. discloses a speech actuated security device and methods whereby a lock or other security or access device may be actuated by a speed input thereto, wherein the security device may be used together with other forms of security such as fingerprint. [US 5,668,929]

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to primary examiner **Van Trieu** whose telephone number is (703) 308-5220. The examiner can normally be reached on Mon-Fri from 7:00 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. **Jeffery Hofsass** can be reached on (703) 305-4717.

The office facsimile number is (703) 872-9314.

Van Trieu
Primary Examiner
Date: 5/31/02